

LISTING OF CLAIMS

Set forth below for the Examiner's convenience is a listing of the currently pending claims.

1.-54. (Cancelled)

55. (Previously Presented) The instrumentation of claim 59, wherein displacement of the at least a portion of the spinal structure is directionally controlled.

56. (Previously Presented) The instrumentation of claim 59, wherein displacement of the at least a portion of the spinal structure is unidirectional.

57. (Previously Presented) The instrumentation of claim 59, wherein outward deformation of said transverse projections is selectively controlled to generate a controlled magnitude of force against the at least a portion of the spinal structure.

58. (Previously Presented) The instrumentation of claim 59, wherein said expanded configuration defines a single pair of transverse projections arranged generally opposite one another along said single transverse axis.

59. (Previously Presented) Instrumentation for treatment of the spine, comprising:
an elongate member extending along a longitudinal axis and including a deformable distal portion having an initial configuration for placement adjacent a spinal structure and an expanded configuration wherein said deformable distal portion is outwardly deformed to define no more than two transverse projections, each of said transverse projections arranged along a single transverse axis, and wherein formation of said transverse projections is directionally controlled such that each of said transverse projections extends in a uni-axial direction aligned with said single transverse axis such that at least a portion of the spinal structure is uniaxially displaced along said transverse axis; and

wherein said elongate member comprises an inner actuator member disposed within an

outer sleeve member, a distal portion of said sleeve member being outwardly deformed to define said transverse projections in response to relative displacement between said actuator member and said sleeve member; and

wherein said deformable distal portion comprises at least one flexible strip of material having a length extending along said longitudinal axis, said flexible strip of material having an outwardly buckled configuration defining one of said transverse projections, said flexible strip of material configured such that said relative displacement between said actuator member and said sleeve member transitions said flexible strip of material to said outwardly buckled configuration and provides said one of said transverse projections with an arc-shaped outer curvature extending along said length of said flexible strip of material and configured to bear against vertebral bone.

60. (Previously Presented) The instrumentation of claim 59, wherein said relative displacement between said actuator member and said sleeve member is relative linear displacement.

61. (Previously Presented) The instrumentation of claim 59, wherein said relative displacement between said actuator member and said sleeve member is regulated to generate a controlled magnitude of force against the at least a portion of the spinal structure.

62. (Previously Presented) The instrumentation of claim 59, further comprising an actuator mechanism coupled between said actuator member and said sleeve member and being operable to impart said relative displacement therebetween.

63. (Previously Presented) The instrumentation of claim 62, wherein said actuator mechanism comprises:

a first portion coupled to said actuator member; and

a second portion coupled to said sleeve member and engaged with said first portion; and

wherein relative rotation between said first and second portions imparts relative linear displacement between said actuator member and said sleeve member to cause said distal portion of said sleeve member to reform from said initial configuration toward said expanded configuration.

64. (Cancelled)

65. (Previously Presented) The instrumentation of claim 59, wherein said deformable distal portion comprises a pair of said flexible strips of material disposed generally opposite one another, said pair of flexible strips of material defining a pair of transverse projections disposed generally opposite one another when transitioned to said outwardly buckled configuration.

66. (Previously Presented) Instrumentation for treatment of the spine, comprising:
an elongate member extending along a longitudinal axis and including a deformable distal portion having an initial configuration for placement adjacent a spinal structure and an expanded configuration wherein said deformable distal portion is outwardly deformed to define no more than two transverse projections, each of said transverse projections arranged along a single transverse axis, and wherein formation of said transverse projections is directionally controlled such that each of said transverse projections extends in a uni-axial direction aligned with said single transverse axis such that at least a portion of the spinal structure is uniaxially displaced along said transverse axis; and

wherein said elongate member comprises an inner actuator member disposed within an outer sleeve member, a distal portion of said sleeve member being outwardly deformed to define said transverse projections in response to relative displacement between said actuator member and said sleeve member; and

wherein said deformable distal portion includes a pair of longitudinally extending slots extending along said longitudinal axis and defining a longitudinally extending flexible strip of material therebetween that is deformed to an outwardly buckled configuration to define one of said transverse projections, said flexible strip of material having a predetermined shape to provide controlled transitioning to said outwardly buckled configuration, at least one of said longitudinally extending slots having a narrowed area and a widened area extending axially from said narrowed area, said widened area having a greater width relative to said narrowed area to provide said flexible strip of material with a narrowed width which defines a flexion point to control outward deformation of said flexible strip of material to said outwardly buckled configuration.

67. (Previously Presented) The instrumentation of claim 66, wherein said predetermined shape including a series of arcuate portions.

68. (Previously Presented) The instrumentation of claim 59, wherein said deformable distal portion defines a plurality of slots, said slots facilitating outward buckling of said deformable distal portion to define said transverse projections.

69. (Previously Presented) Instrumentation for treatment of the spine, comprising:
an elongate member extending along a longitudinal axis and including a deformable distal portion having an initial configuration for placement adjacent a spinal structure and an expanded configuration wherein said deformable distal portion is outwardly deformed to define no more than two transverse projections, each of said transverse projections arranged along a single transverse axis, and wherein formation of said transverse projections is directionally controlled such that each of said transverse projections extends in a uni-axial direction aligned with said single transverse axis such that at least a portion of the spinal structure is uniaxially displaced along said transverse axis; and

wherein said elongate member comprises an inner actuator member disposed within an outer sleeve member, a distal portion of said sleeve member being outwardly deformed to define said transverse projections in response to relative displacement between said actuator member and said sleeve member; and

wherein said deformable distal portion defines a plurality of longitudinally extending slots extending along said longitudinal axis, a pair of said slots defining a longitudinally extending flexible strip of material therebetween that is deformed to an outwardly buckled configuration to define one of said transverse projections, each of said plurality of slots having a predetermined shape to provide controlled outward buckling, at least one of said longitudinally extending slots having a narrowed area and a widened area extending axially from said narrowed area, said widened area having a greater width relative to said narrowed area to provide said flexible strip of material with a narrowed width which defines a flexion point to control outward deformation of said flexible strip of material to said outwardly buckled configuration.

70. (Previously Presented) The instrumentation of claim 69, wherein said predetermined shape is at least partially comprised of an hour-glass shape.

71. (Withdrawn) The instrumentation of claim 59, wherein said deformable distal portion comprises a plurality of elements flexibly interconnected in series to form a reformable structure, said reformable structure being collapsible to define said initial configuration and reformed to define said expanded configuration.

72. (Withdrawn) The instrumentation of claim 71, wherein said plurality of elements are arranged in a substantially uniform orientation when in said initial configuration, and wherein at least some of said plurality of elements are arranged in a non-uniform orientation when in said expanded configuration.

73. (Withdrawn) The instrumentation of claim 72, wherein said substantially uniform orientation defines a substantially rectangular-shaped profile; and
wherein said non-uniform orientation defines a substantially triangular-shaped profile.

74. (Previously Presented) The instrumentation of claim 59, wherein said deformable distal portion is at least partially formed of a shape-memory material, said deformable distal portion being reformed from said initial configuration toward said expanded configuration in response to the imposition of stress and automatically reformed back toward said initial configuration upon removal of said stress.

75.-93. (Cancelled)

94. (Previously Presented) The instrumentation of claim 59, wherein said deformable distal portion includes a pair of longitudinally extending slots extending along said longitudinal axis and defining said flexible strip of material therebetween, said flexible strip of material having a predetermined shape to provide controlled transitioning to said outwardly buckled configuration, at least one of said longitudinally extending slots having a narrowed area and a widened area extending axially from said narrowed area, said widened area having a greater width relative to said narrowed area to provide said flexible strip of material with a narrowed width which defines a flexion point to control outward deformation of said flexible strip of material to said outwardly buckled configuration.

95. (Previously Presented) The instrumentation of claim 94, wherein said widened area of said slot is defined by an arcuate portion of said slot.

96. (Previously Presented) The instrumentation of claim 94, wherein said slot has first and second widened areas with said narrowed area positioned between said first and second widened areas to provide said slot with an hour-glass shape.

97. (Previously Presented) The instrumentation of claim 96, wherein said hour-glass shape is defined by a series of arcuate portions of said slot extending along said longitudinal axis.

98. (Previously Presented) The instrumentation of claim 66, wherein said widened area of said slot is defined by an arcuate portion of said slot.

99. (Previously Presented) The instrumentation of claim 66, wherein said slot has first and second widened areas with said narrowed area positioned between said first and second widened areas to provide said slot with an hour-glass shape.

100. (Previously Presented) The instrumentation of claim 99, wherein said hour-glass shape is defined by a series of arcuate portions of said slot extending along said longitudinal axis.

101. (Previously Presented) The instrumentation of claim 69, wherein said widened area of said slot is defined by an arcuate portion of said slot.

102. (Previously Presented) The instrumentation of claim 69, wherein said slot has first and second widened areas with said narrowed area positioned between said first and second widened areas to provide said slot with an hour-glass shape.

103. (Previously Presented) The instrumentation of claim 102, wherein said hour-glass shape is defined by a series of arcuate portions of said slot extending along said longitudinal axis.